Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 22 Number 1 **Fall 2002**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m. —Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May and June. Check the Web page for additional program information.

Nov. 7: "Restoring native landscapes in an urban environment," Keith Prussing, Cedar Lake Park Association; **Seed exchange.**

Dec. 5: "Dutch elm disease," Mark Stennes; **Plant of the month:** Bladdernut, by Mike Zins.

Feb. 6: "Logging influence on plant diversity;" Plant of the month: Cardinal flower, both by Alaina Berger.

March 6: "Invasive species," Plant of the month: Poison sumac, both by Peter Djuk; **Board member election.**

April 3: To be announced.

May 1: "Native Rain Gardens," by Fred Rozumalski.

June 5: Plant sale.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

New Duluth ordinance may protect native plant habitats

by Meredith Cornett

Monday, Sept. 9, the Duluth City Council passed an ordinance officially creating the Duluth Natural Areas Program (DNAP). The purpose of the program is to protect special natural features that make significant contributions to the area's biological diversity. Enrollment in the program will convey special protection for these areas.

Duluth is known nationally for its system of natural parks and open space, encompassing over 10,000 acres of forest and other natural areas. City staff recently revisited the status of these areas and found that they are technically unprotected from development and other uses that can be incompatible with healthy ecosystems.

Places that may be strong candidates for the program include those that contain examples of significant native plant communities, rare species, important bird congregation areas, unusual geologic landforms, and special water features. Through the program, any individual or organization can nominate city-owned lands and waters. Private lands may also be nominated, but only with cooperation and approval from the landowner. DNAP is a science-based land and water conservation program. All nominations will be accompanied by a professionally prepared scientific analysis of what makes the place significant.

The development of DNAP has been a grassroots effort. The Nature Conservancy of Minnesota worked closely with city staff to draft guidelines that reflect the value that local residents place on the conservation of natural areas. First announced by Mayor Gary Doty, the program has broad-based public support. Groups such as the St. Louis River Citizens Action Committee, Hawk Ridge researchers, and private citizens testified on the benefits of DNAP for the local community. Not only a benefit to local biological diversity, programs like DNAP can contribute to ensuring quality of life and economic sustainability that come from a protected system of natural areas.

The DNAP Ordinance became effective Oct. 8. Nominations can now be made to the program by any individual or organization. For further information, visit the City's website: www.ci.duluth.mn.us/city/planning/dnap/TMP3yfg6zliil.htm

Esther McLaughlin is new president

Esther McLaughlin was elected Minnesota Native Plant Society president at the Sept. 22 board meeting. Linda Huhn was elected vice president and will serve as program chair. Meredith Cornett was elected secretary; David Johnson was re-elected treasurer.

Fall field trip

Jason Husveth will lead a Winter Botany Walk Saturday, Nov. 9 at the Refuge. Check the MNPS Web site for details.

Seed exchange is Nov. 7

Members are invited to collect mature seeds of native plants, package them and bring them to the meeting. Seeds should be placed in individual envelopes, ready for members to pick up. Labels should include the plant name, scientific name (if known), habitat type, the city or county where the seeds were gathered, and the name of the donor.

Symposium topic is shrubs

The 2003 symposium will be about native shrubs in your landscape. Janet Larson will chair the event.

Water hyacinths are found in Wisconsin

A Wisconsin DNR staff member discovered a healthy population of water hyacinths at a wastewater treatment plant in Price County this summer. They may have been growing there for at least two years. Waterfowl use the site, which is difficult to access. It is suspected that the plants came in on a bird. The DNR removed and disposed of the plants and will monitor the site.

Classified ads

This is a new department in the *Minnesota Plant Press.* Members may place one ad of up to 15 words in the newsletter at no cost. Include a telephone number. Ads must be consistent with the mission of the society.

Send the ad by e-mail to gdrewry@infi.net or mail it to Gerry Drewry, 24090 Northfield Blvd., Hampton, MN, 55031. Deadlines for ads to be received are Jan. 1, April 1, July 1 and Oct. 1. We reserve the right to edit ad copy.

For sale

One Gro-Lite 48" 4-shelf plant stand, $250. Dottie Lillestrand, 952-884-7619, or lillestrand@msn.com

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

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1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

MNPS Board of Directors

President: Esther McLaughlin, Biology Dept., Augsburg College, Minneapolis, MN 55454; 612-330-1074; mclaugh@augsburg.edu

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Janet Larson, 7811 W. 87th St., Bloomington, MN 55438; 952-941-6876; janetl@supremecompanies.com

Douglas Mensing, 5025 Russell Ave. S., Minneapolis, MN 55410; 952-925-3359 (W), 612-926-8637 (H); dougm@appliedeco.com

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Listserv Coordinator: **Charles Umbanhowar**, ceumb@stolaf.edu

Minnesota Plant Press **editor: Gerry Drewry,** 24090 Northfield Blvd., Hampton, MN 55031; phone, 651-463-8006; fax, 651-463-7086; gdrewry@infi.net

Technical or membership inquiries: MNPS@HotPOP.com

Plant Lore

by Thor Kommedahl

What is black-eyed Susan?

Black-eyed Susan, known also as brown-eyed Susan and coneflower, is in the sunflower family. The most frequently found species of *Rudbeckia* in Minnesota are *Rudbeckia hirta* and *R. laciniata.*

How did it get its names?

Linnaeus named this species for his mentor, Professor Olof O. Rudbeck and for his son, J.Olof Rudbeck, both, of whom taught at Uppsala, Sweden. The name coneflower comes from the conical shape of the inflorescence center.

What about "black-eyed Susan?"

Perhaps it came from the ballad that John Gay wrote in 1720 called *"Sweet William's Farewell to Black-ey'd Susan,"* which begins: All in the Downs the fleet was moor'd,/The streamers waving in the wind,/When black-ey'd Susan came aboard./ "Oh! where shall I my true love find!/ Tell me, ye jovial sailors, tell me true,/If my sweet William sails among the crew."

Where does this plant grow?

Most native rudbeckias grow in dry areas or prairies throughout the state, but *R. laciniata* can be found in wet ditches at the edges of swamps.

What do the plants look like?

R. hirta can be an annual, biennial, or short-lived perennial; whereas *R. laciniata* is a perennial. Often a rosette forms in the fall. Its one- to two-foot-tall stems are finely grooved, probably to add strength (fluted stems are stronger than plain ones). The composite flower has a center that is dark purple-brown except for the bright yellow pollen. The yellow ray flowers are sterile.

Are the plants edible, toxic, or medicinal?

No, they are not edible. Poisoning has been reported in cattle, hogs, and sheep. Some humans are sensitive to touching plants. The American Indian used *R. laciniata* as a treatment for indigestion and burns.

Are they good garden plants?

Yes, there are many varieties that are cultivated in gardens, but if not kept under control, they can become weeds.

Minnesota Invasive Species Advisory Committee meets

by Esther McLaughlin

Janet Ebaugh represented MNPS at the July 23 meeting of the Minnesota Invasive Species Advisory Committee (MISAC). Other organizations represented on the committee include the Minnesota Department of Agriculture, the DNR, The Nature Conservancy, and APHIS. A variety of topics were discussed, including:

- Criteria to be developed for ranking species by their level of risk or noxiousness, and additions to the list of affected parties, such as industry and urban landscapes, in addition to agriculture and horticulture;
- The need for a centralized database to record and track information on invasive species;
- Revisions of the statutes referring to agricultural pests, especially as related to invasive species;
- An update on a new pest, the emerald ash borer, on ash trees, recently recognized in Michigan but not previously on anyone's pest list; and
- Formation of a new Education and Outreach subcommittee of MISAC.

I plan to attend the October meeting of MISAC, and will report any noteworthy items from that meeting in the next *Minnesota Plant Press.*

Carroll Henderson honored for Costa Rica field guide

Minnesota Department of Natural Resources wildlife biologist and author Carrol Henderson was guest of honor Oct. 3 at a reception and book signing hosted by the Costa Rican Embassy in Washington, D.C.

Henderson's newest book, *Field Guide to the Wildlife of Costa Rica*, has just been published by the University of Texas Press. The 539-page book includes information about the country's major habitats, details about some of the best tourism destinations, and accounts of nearly 300 species of birds, mammals, reptiles, amphibians, butterflies, and moths that travelers may encounter in Costa Rica. The book contains more than 430 color photos taken by Henderson.

Henderson is best known in Minnesota for his nongame wildlife conservation work with the Minnesota DNR and for the five books he has authored or co-authored for the DNR. This is the first book that Henderson has written on his own time. It is based on information and photos he collected in Costa Rica since he did his graduate studies there in 1969 and while leading 17 annual birding and wildlife tours there since 1987. The birding tours, which feature Henderson and his Costa Rican wife Ethelle as the trip leaders, are coordinated by Preferred Adventures in St. Paul.

Henderson will donate a portion of the book royalties to Costa Rican conservation projects. Proceeds from the book signing in Washington, D.C., will go to the Costa Rica-Minnesota Foundation. The book is available for $39.95, plus shipping and tax, at all major booksellers.

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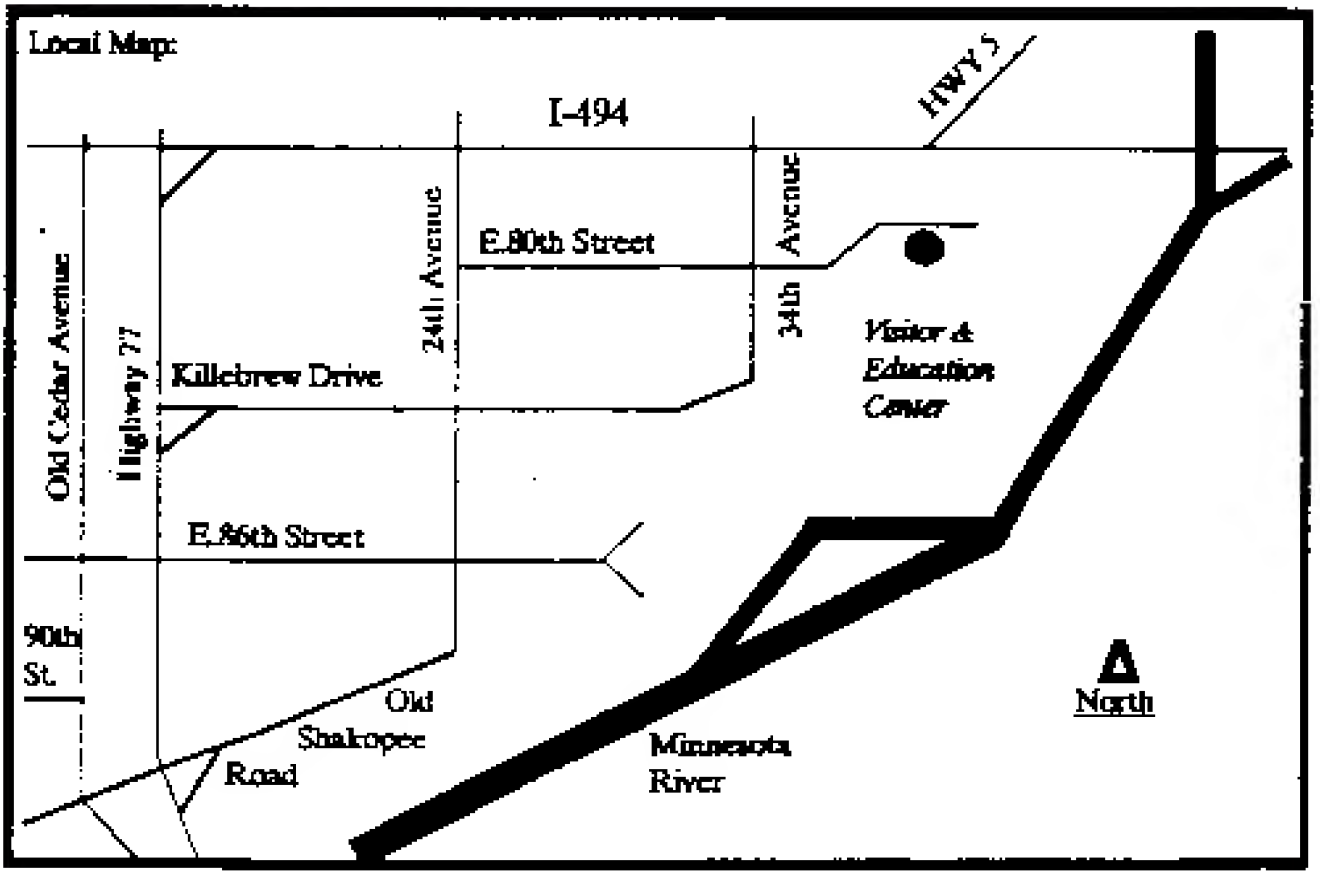

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Feb. 6: "Harvesting impacts on understory plant composition in aspen forests," by Alaina Berger; **Plant of the month:** Cardinal flower, by Steve Eggers.

March 6: "Invasive species in Minnesota," Plant of the month: Poison sumac, both by Peter Djuik; **Board member election.**

April 3: McKnight Foundation's "Empracing Open Space" program, by Whitney Clark; **Plant of the month:** Dwarf bilberry, by Robert Dana.

May 1: "Native Rain Gardens," by Fred Rozumalski; **Plant of the Month:** Bloodroot, by Shirley Mah Kooyman.

June 5: Plant sale; speaker to be announced.

April 26: Symposium, Plymouth Creek Center, Plymouth

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Prairies provide a new stimulus in rural areas

After a hundred years of being destroyed or ignored, Minnesota's prairies are becoming known for a new reason — for economic development. A new 32-page booklet by the state Department of Natural Resources, *A Guide to Minnesota's Prairie Passage Route and Sites,* is one of the tools being used to increase awareness of these areas by tourists and businesses. Its excellent photos and maps show the diverse plants and other attractions in 39 important prairie remnants.

Prairie Passage began in 1993. That year the Federal Highway Administration gave funding to the departments of transportation in Minnesota, Iowa, Missouri, Kansas, Oklahoma and Texas to form a partnership to protect and plant native grasses and wildflowers along roadside rights-of-way and to promote awareness of prairie-related natural and cultural resources.

A Prairie Passage route was created to pass through prairie remnants from Minnesota to Texas. In Minnesota, Prairie Passage goes from the Wallace C. Dayton Conservation and Wildlife Area in the northwest corner, south to Blue Mounds State Park, and east along I-90 to the Shooting Star Wildflower Route and Scenic Byway. From there it turns south into Iowa and generally follows I-35 to the Gulf of Mexico.

"One goal of Prairie Passage is to development awareness of our prairie heritage. It can be a community builder — ecologically and socially," said Kathy Bolin, who has had the primary responsibility for developing Minnesota's Prairie Passage for MnDOT. "We hope communities will respond." She would like to see Prairie Passage integrated into schools and other organizations. Prairie Passage fits with the recent trend for vacationers to visit areas close to home, she said. As prairies grow in popularity, small businesses will start to sponsor prairie tours and other activities. There are many other prairie remnants near the route that could be included in planned tours.

MnDOT has installed Prairie Passage signs along the roads and at sites. The next step is up to the communities, Kathy said. "There is a lot of interest in prairies. Communities along Hwy. 32, including Fertile, Gary, Twin Valley, and Hitterdal, are planning to promote

Continued on page 5

From the president

Welcome to all new and old members of MNPS! To introduce myself, I am a botanist by trade, as is my husband, and we are both charter members of the society. I teach biology at Augsburg College in Minneapolis, and we have a garden mainly (but not exclusively) consisting of native trees, shrubs, and perennials.

Many of you already volunteer in many different ways for MNPS (everything from helping with refreshments at meetings to serving on committees and speaking at our programs). We are always very happy to have this kind of support. I hope this year many more of you will find a way to volunteer some modest amount of time or effort for the society in our common goals of supporting, preserving, and educating about native plants. Besides being fun, it's a great way to get to know like-minded people!

As part of our mission, we are always interested in the never-ending battle against invasive alien species (European buckthorn, etc.). With this interest, the society is represented on a statewide taskforce, the Minnesota Invasive Species Advisory Council (MISAC), which also has representatives from The Nature Conservancy, Department of Natural Resources, Minnesota Department of Agriculture, University of Minnesota and quite a few other organizations. I have attended some meetings as our representative; other MNPS members have also attended some meetings. Anyone interested in seeing minutes or information about MISAC, can send an e-mail to me: mclaugh@augsburg.edu.

I urge all members to keep an eye out for information about our spring symposium this year. It's on native shrubs in our landscapes. Janet Larson, our MNPS buckthorn vigilante and expert on shrubs, is organizing the event.

Esther McLaughlin
2003 President of MNPS

Plant list is on the Web

The Minnesota vascular plant list is now on the DNR's Web site. It identifies each plant as native or non-native. The posting was prompted by Wetland Conservation Act rules about use of native species. The Web site address is: www.dnr.state.mn.us/ecological_services/index.html

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Environmentalists win two metro-area election victories

Dakota and Hennepin county environmentalists were victorious in in the Nov. 5 election.

Dakota County

In Dakota County, 57 percent of voters approved a bond issue to preserve natural areas and farmland. This is the first Minnesota county-wide program of this type. The Dakota county board has started the process of implementing the new program. A citizen committee will be appointed to advise them.

The county will sell $20 million in bonds that will be repaid over a 10-year period. A typical homeowner will pay about $17 per year for 10 years. Half of the funds are to be used to preserve natural areas, and half for agricultural land. Much of the money will be used to purchase development rights, but some natural areas may be purchased outright.

Participation in the program is voluntary, and land offered must meet criteria that have been set by the county board. Natural areas must have one of the following: biologic significance, wildlife habitat, adjacency to a river/lake/stream, or provide environmental benefit such as water quality protection or flood control.

Requirements for farmland to be accepted into the program include high fertility, already enrolled in the ag preserves, and located outside of the 2040 Metropolitan Urban Service Area (MUSA). In addition, the first parcels of farmland that are accepted must be within 1/2 mile of a river or lake and adjacent to a natural area. After that land has been accepted, adjacent qualified farmland may be included. The program is the result of a four-year project that involved nine organizations and about 1,200 county residents.

Hennepin County

A proposal to terminate the Hennepin Conservation District was defeated with 74 percent voting "no." When the district was founded in 1949, it had an agricultural focus. Now it serves an urban community. Its areas of expertise include conducting natural resource inventories for use as planning tools, advising and implementing restoration projects, and conducting studies on water resources.

Symposium to be April 26

"Native Shrubs in your Landscape" is the topic for this year's MNPS symposium. It will be held Saturday, April 26, in conjunction with the City of Plymouth's Yard and Garden Expo at the Plymouth Creek Center, 14800 34th Ave. N., Plymouth.

Janet Larson, the society's buckthorn expert, is organizing the symposium, which will include a variety of information on native shrubs. One of the sessions will include landscaping after buckthorn has been removed. Information on speakers and registration will be posted on the MNPS Web site, and members will receive a brochure in the mail.

Spring wildflower walk will be in Louisville Swamp

Saturday, May 31, enthusiastic botanists and MNPS board members Jason Husveth and Douglas Mensing will lead a spring wildflower walk from 9 a.m. to 12:30 p.m. in the Louisville Swamp portion of the Minnesota Valley National Wildlife Refuge.

They will explore varied habitats, including a floodplain forest, maple-basswood forest, wet meadows and dry prairies. Participants will see some of the lesser-known flora of the valley as well as more common spring wildflowers, shrubs and trees.

Attendees are encouraged to bring their own wildflower guides, hand lenses, magnifying glasses, a sack lunch and water. The walk is co-sponsored by the society and the refuge. There is no charge.

The tour will start promptly at 9 a.m. at the main Louisville Swamp trailhead, which is about 4.5 miles south of Shakopee. Take Hwy. 169 and exit onto 145th St. W. Follow the road past the main entrance to the Renaissance Festival and over the next set of railroad tracks. The Louisville parking lot is located on the left.

To register or for more information, contact Jason Husveth at jason.husveth@ttemi.com or Doug Mensing, dougm@appliedeco.com

Think Native administrator is needed

The Think Native Program is solely sponsored by the MNPS. It assists homeowners with starting native gardens via information packets and grants of plants. The Think Native Program is starting its third year, and it is time to solicit individuals to apply for the program administrator position.

The program administrator assists grant applicants with starting a native plant garden at their residences. Contact Deborah Strohmeyer for more details: destrohmeyer@yahoo.com or call 952-943-9743.

Dennis Hageman — a prairie champion is lost

by Nancy Sather

October 14, 2002. A cold autumn day on Devils Lake. A strong wind. A boat of duck hunters capsizes.

In this accident, prairie conservation lost an ardent champion, Dennis Hageman of Estherville, Iowa. This gentle, soft spoken prairie advocate is responsible for introducing dozens of local landowners to the prairie jewels in their native pastures. In spring he was out there leading them to pasque flowers; in midsummer he was showing off the differences between the species of sunflowers; in late fall; when the landscape looked like an impressionist painting in buff and maroon; he led farm families to the secret homes of blue gentians.

Dennis was not a trained botanist. But he had the essential eye—the eye that notices the difference between this plant and that plant. Nor was he an ecologist; but this Dean of Social Sciences at Iowa Lakes Community College had a knack for walking right to the gentle concavity on a hill where a rare plant might grow, or spotting a fen at a distance of a quarter mile. His friends and neighbors in Estherville may know him for his famous ability to spot morels in the forests; but the Minnesota conservation community knows him by another measure.

I first met Dennis Hageman in 1986 on Red Rock Ridge near Jeffers Petroglyphs in Cottonwood County, Minnesota. I was studying the life history of prairie bush clover, a federally threatened plant. Dennis was exploring a little prairie across the road. As I watched that lanky, black haired stranger bend down over plants in the middle of a hayfield, nearly crawling through the long grasses, I realized he wasn't a typical farmer out checking the hay. "What are you looking for?" I asked, and was astounded at his reply. He was searching for prairie bush clover. Trained as a botanist and working for a state agency, I thought prairie bush clover was a little-known plant—but here was a citizen looking for it!

As it developed, I was the one who was a stranger in those parts, and Dennis was on home ground. His love of prairie was as native as the prairie itself. It's a short way from Comfrey, Minnesota, where he was raised, to the prairies he studied in his latest years. Many of those prairies were the same ones where he'd helped his father bale hay in his youth. Every place I asked about on the road between Springfield and Estherville, he already knew. He knew where the dry prairies were and had a hunch where mesic prairies might be.

In 1986, when I met him, he didn't know the scientific names of the plants he sought, and there were many of those plants he couldn't yet recognize; but his insatiable curiosity drove him ever deeper into botanical knowledge and prairie ecology. When the Minnesota County Biological Survey was hunting for a person to conduct surveys in the southwestern part of the state, Dennis was one of the region's leading amateur botanists.

During the past two decades, Dennis Hageman was responsible for the documentation of 58 dry prairies, 65 mesic prairies, 63 locations of rare plants, and 29 populations of the federally threatened prairie bush clover (45 percent of known locations in the state). He logged thousands of miles on foot through pastures, roadsides and railroad rights-of-way. Ever since the first day that he and Florence Roefer and I walked what is now Prairie Sky Scientific and Natural area near Sanborn, Minn., Dennis has been a volunteer interpreter of prairies. He had a special fondness for the Jeffers Petroglyphs Historical Site and led trips there as a volunteer naturalist.

Dennis is the one who first sat around scores of kitchen tables explaining conservation easements to owners of retired pastures; who spent years bringing to a landowner in a nursing home wild flowers from her prairie, always urging her to think about conservation as the best and highest use for her land. He's the one who called The Nature Conservancy, the USFWS, or the DNR whenever prairie land was up for sale. He's the one who bought 14 acres of his own to do a personal prairie restoration. He encouraged young people interested in prairie and networked with every regional group involved in prairie management and interpretation.

Dennis retired about a year ago and looked forward with zest to spending many years in prairie biology and advocacy. His untimely death leaves a huge vacuum in prairie energy in southwest Minnesota, but he was not alone. The region is alive with local prairie enthusiasts who understand and appreciate this natural heritage, not only for its historical value but as an opportunity for a new ecotourism industry of the future.

Our greatest tribute to this modest man will be to carry forth his vision of a functioning prairie landscape that extends unbroken from the Iowa border to Windom and beyond.

Memorial checks may be made out to the Minnesota Historical Society and sent to Jeffers Petroglyphs, 27160 Co. Rd. 2, Comfrey, MN 56019.

Wildlife Interpretive Training Offered

by Judie Miller
Public Affairs Officer, Minnesota Valley National Wildlife Refuge

Have you ever noticed that some people just seem to be natural storytellers? Others seem to have ways of handling people that make them comfortable. Still others are able to explain just about anything to anybody in ways that make sense. All of these abilities and much more are involved in the art of interpretation. Some people are just natural interpreters. The rest of us can learn enough about interpretive techniques to improve the way we communicate with others.

Minnesota Valley National Wildlife Refuge (Refuge) and the National Association for Interpretation (NAI) are sponsoring a 32-hour Certified Interpretive Guide Course March 20-23. We'll introduce you to the basic principles of interpretation and coach you in the application of those principles. By the end of the course, you'll have a good understanding of what makes interpretation different from delivering a memorized speech and why an interpretive approach may be more effective for communicating with your audiences.

You'll have opportunities to demonstrate what you've learned as the session progresses. If those demonstrations meet certain criteria, your efforts will be recognized and you'll become a NAI Certified Interpretive Guide (CIG). Certification, course materials, and a one-year membership in NAI cost $145.00. This training opportunity is limited to 15 participants.

Financial assistance is available for students who demonstrate a one-year commitment to the Refuge. Call Ed Moyer at 952-858-0710 for registration materials or more information.

Cedar Lake Park — restoration of an urban native landscape

By Dr. Keith Prussing
(abstract of Nov. 7, 2002 talk)

Located less than two miles west of downtown Minneapolis, with a stunning view of the city skyscape,Cedar Lake Park has experienced native landscape restoration since the '70s, with a major acceleration in the mid-'90s to the present. The park contains a variety of ecosystems, including lake, emergent lakeshore, wet forest, oak woodland, oak savannah, prairie, maple-basswood, cattail marsh, lawn, hardscrabble, streets and backyards. There are foxes, minks, badgers, bobcats, muskrats, and a myriad of birds.

The curious thing is that most of this landscape was under water prior to the coming of the railroads in the 1870s. James J. Hill pushed a rail causeway across the northern part of the lake on his way to the great Northwest, and rail operations, including machine shops and switching yards, continued into the mid-1980s.

The lake level is down 8 -11 feet from pre-settlement times, due to the opening of the canal to Lake of the Isles in the early 1900s. In addition, enormous volumes of fill material were deposited around the lake. This included a public works dump near the east shore from 1905 into the '60s, which created 60-foot elevations.

Cedar Lake Park is the result of the work of a partnership among the City of Minneapolis, Minneapolis Park and Recreation Board, Hennepin County, state and federal governments, and the community as represented by the Cedar Lake Park Association. These efforts have resulted in the rescue of 47 acres of land from development; the creation of the national-award-winning Cedar Lake Trail with prairie restoration; two Conservation Partners matching grants with the state for native plant restoration; the planting of thousands of native trees, shrubs, forbs, ferns and fungi; and the removal of exotics such as buckthorn, honeysuckle, wormwood, garlic mustard, and leafy spurge.

Cedar Lake Park is a work in progress. It is largely a volunteer effort. We welcome your help. Donations of time, monies, and native plant materials are appreciated. For more information about the park, visit on the Internet at www.cedarlakepark.org, or call CLPA at 612-377-9522.

Board members to be elected in March

The Minnesota Native Plant Society Nominations Committee has been identifying potential board members. Outgoing members are Meredith Cornett, Ethan Perry, and Esther McLaughlin. The board meets quarterly, and its members serve three-year terms. Linda Huhn is chair of the nominations committee, and interested members should contact her. The election will be held at the March 6 meeting.

Prairie Passage guide

Continued from page 1

economic development and sustainability as a result of this program. A Prairie Passage prairie gives communities something to brag about — being part of a national effort."

For additional information, call Kathy Bolin, Prairie Passage coordinator, at 651-284-3765, or send an e-mail to her at: kathy.bolin@dot.state.mn.us. Single or multiple copies of the booklet may be obtained at no cost from the DNR.

American bladdernut is a useful plant in shade and sun

by Mike Zins
Abstract from Dec. 5, 2002, Plant of the Month talk

Is it any wonder that the common name of *Staphylea trifolia*, American bladdernut, challenges the gardening public's perception of a very useful plant for our landscape? In today's sanitized world, bladdernut conjures up thoughts of medical problems and anatomical features we would rather not discuss, let alone be planting out in the yard. But beyond the shadow of a common name that has as little marketing appeal as plugged freeways to rush-hour commuters, is a native plant with many desirable features. It just needs some good press and promotion.

American bladdernut is as American as apple pie. It occurs naturally from western Quebec to Ontario, western New England to Minnesota, and south to South Carolina and Missouri. It usually frequents moist, wooded areas and ravines in the southern part of Minnesota, as far north as Ramsey County and westward to the New Ulm area. The genus *Staphylea* has about eight species found growing in north temperate areas, two of which are native to North America, the American bladdernut, *Staphylea trifolia,* being the most prominent.

Usually thought of as a shrub to 10 feet tall, American bladdernut can be grown as a small tree attaining heights of over 15 feet. The national champion is a Goliath standing 36 feet tall, with an equal crown spread. Perhaps more surprising is the fact that this champ is growing in Macomb County, Maine.

The Arboretum had a nice tree specimen growing in the small tree collection. It was moved to this collection in 1965 and persisted until 1990, cause of death unknown. It reached a height of about 12 feet and flowered and fruited heavily for many years.

American bladdernut has several nice qualities that make it an attractive plant for our landscapes. In spring the oppositely arranged, nearly round buds open, giving rise to pinnately compound leaves, each consisting of three leaflets. The dark green leaflets, with their trifoliolate arrangement, account for the species name *trifolia.* After the leaves have expanded in early May, the plant produces an abundance of perfect, greenish white, half-inch-long, bell-shaped flowers borne on two-inch-long panicles.

Heavy flowering provides a nice contrast of white on green. Soon after, the flowers develop into the inflated capsules, or bladders, from which the name is derived. The three-lobed, greenish white capsules are 1 – 1.5 inches long and remind people of Chinese lanterns in midsummer. By August the maturing capsules start turning brown as the small, brown seeds also mature. The capsules often persist through the winter, if squirrels and deer leave them alone. At this point, they make effective rattles. The bark on the older stems is attractive with its linear white fissures against a greenish gray background.

Culturally, *Staphylea* can be grown as a small tree — single or multiple stem — or as a large shrub. The plants are capable of colonizing by producing suckers, and one plant on the University of Minnesota St. Paul campus has made a very nice mass planting to fill in a corner area. Like most plants, *Staphylea* does well in full sunlight, but it is surprisingly tolerant of shade as well. I have seen it growing in very dense shade in the Vermillion River bottom in Hastings, where it was too dark to take a picture. With too much shade a concern of many gardeners, *Staphylea* could be used more.

It prefers moist, well-drained soils but seems to get along fine on most sites. A poorly drained, wet, clay-based soil would not bode well, and I suspect that is what eventually laid low our specimen in the Arboretum's small tree collection, where heavy clay soils abound. Soil pH does not seem to be a factor unless high pH is encountered.

American bladdernut will never become a standard household word in the horticulture world of woody landscape design, but it is an interesting plant that can certainly help enhance many landscapes. The outstanding visual aspects are the dark green foliage and interesting bark patterns. The curious aspect certainly would be the fruiting capsules, or bladdernut fruit structures. The shade tolerance is a definite asset to shady gardens. Perhaps best of all to some people is the fact that it is native. So be patriotic, plant American — bladdernut that is!

Searchers are needed

Volunteers are needed to help look for Minnesota dwarf trout lilies the last week of April and the first week of May, and for Western prairie fringed orchids in mid-July. Contact Nancy Sather at 651-297-4963, or nancy.sather@dnr.state.mn.us Leave your e-mail address, phone number and mailing address, and you will receive more information.

Native seed quality workshop

The third annual Native Seed Quality Workshop will be held Feb. 25 and 26 in Omaha, Neb. Topics include native seed testing, conditioning, production and research. Participants will tour Stock Seed Farms, a producer of prairie grass seed. Contact Mid-West Seed Services, Inc. at 605-692-7611; or go to www.mwseed.com

Plant Lore

by Thor Kommedahl

What is red-osier dogwood?

Dogwood is the name for species of *Cornus,* and red-osier dogwood is the name for *C. stolonifera*, but recent taxonomic works call it *C. sericea.*

What do these names mean?

Cornus is the Latin name for "horn," alluding to the hardness of the wood. Dogwood refers to "dogs," which is the name for skewers made from the hardwood stems. And *stolonifera*, of course, means bearing stolons as a means of reproduction. But *sericea* means silky-hairy (sometimes implying Chinese) in reference to sparse, appressed hairs on lower leaf surfaces and stems.

Where does this dogwood grow?

Red-osier dogwood is one of six species native to Minnesota and is found in nearly every county in the state, frequently along stream banks, bogs, and in moist woods. It often forms thickets.

What does the plant look like?

It is a shrub from 1 to 3 meters tall with red stems, white flowers, opposite leaves, and is the only dogwood in our area with white berries and white pith.

What is the reference to Chinese?

Cornus is one of about 120 genera that occur in eastern Asia and eastern North America. Linnaeus noted this similarity, and Asa Gray discussed this similarity with Charles Darwin in correspondence during the 1850s. Current explanations refer to plate tectonics and continental drift. Gray demonstrated statistically that there was greater similarity in flora of New England with Asia than with Europe or even western USA.

Does red-osier dogwood have any economic value?

American Indians prepared "kinnikinnik" from wood scrapings and smoked it, with or without tobacco. They also used the bark infusions as an emetic. Sometimes this species was used instead of flowering dogwood, the roots of which were once used as substitute for quinine. Cultivars are used in landscape plantings and can be propagated by cuttings and grafting.

Winter botany walk combines fun with tree, plant information

by Doug Mensing

On Nov. 9, MNPS sponsored a winter botany walk at the Refuge headquarters. Approximately 12 people showed for the outing. Janet Larson, a professional arborist/native landscape designer and MNPS board member, provided an overview of the society and gave some general information on winter plant identification. She then led the group outside to observe and discuss the native and introduced vegetation as we went.

First stop was the restoration project behind the Refuge building. Janet has been working with the MNPS and the Refuge for many months on restoring and enhancing the native vegetation found in this "bird feeding" area. We learned how to identify common buckthorn *(Rhamnus cathartica)* in the winter and discussed the ecological impacts of this invasive European shrub. Some of this area and other forested areas within the Refuge had recently been cleared of buckthorn, so it will be exciting to follow the restoration efforts in the coming years.

Our walk through the woods and along the paths led us to many native and non-native trees, shrubs, wildflowers, and grasses. Janet, with input from Doug Mensing, another MNPS board member, and others in the group, helped to point out diagnostic tools useful in winter identification of vegetation, such as bark, branching patterns, fungal infections, buds, seed heads, etc. We identified bur oak (*Quercus macrocarpa)*, northern pin oak *(Quercus ellipsoidalis)*, basswood (*Tilia americana),* hackberry *(Celtis occidentalis)*, cottonwood *(Populus deltoides),* silver maple *(Acer saccharinum),* black ash *(Fraxinus nigra),* red-osier dogwood (*Cornus sericea),* cherries *(Prunus spp.)*, the invasive exotic shrub Tartarian honeysuckle *(Lonicera tatarica),* and numerous wildflowers, grasses, and weeds. In the more degraded areas there was a conspicuous lack of native understory trees, shrubs, and groundcover vegetation.

We walked through the prairie restoration just outside the Refuge building and were able to identify about half a dozen common prairie species. Along the trailside bluff prairie we encountered several butternut trees *(Juglans cinerea),* a Minnesota species of "Special Concern." Most of these trees were dead or dying due to butternut canker, an exotic but now common fungal infection of these trees. We poked down into the wetter lowlands and identified several wetland-edge species, as well as discussed the phenomenon of invasive/aggressive strains of otherwise native species, such as giant reed grass *(Phragmites australis).* Many questions were answered regarding the vegetation communities of the river valley.

Overall the walk was informative and fun, with many questions and much enthusiasm from the group. The MNPS plans to host a spring botany walk at the Louisville Swamp unit of the Refuge on May 3. We hope to see you there!

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220 Biological Sciences Center
St. Paul, MN 55108

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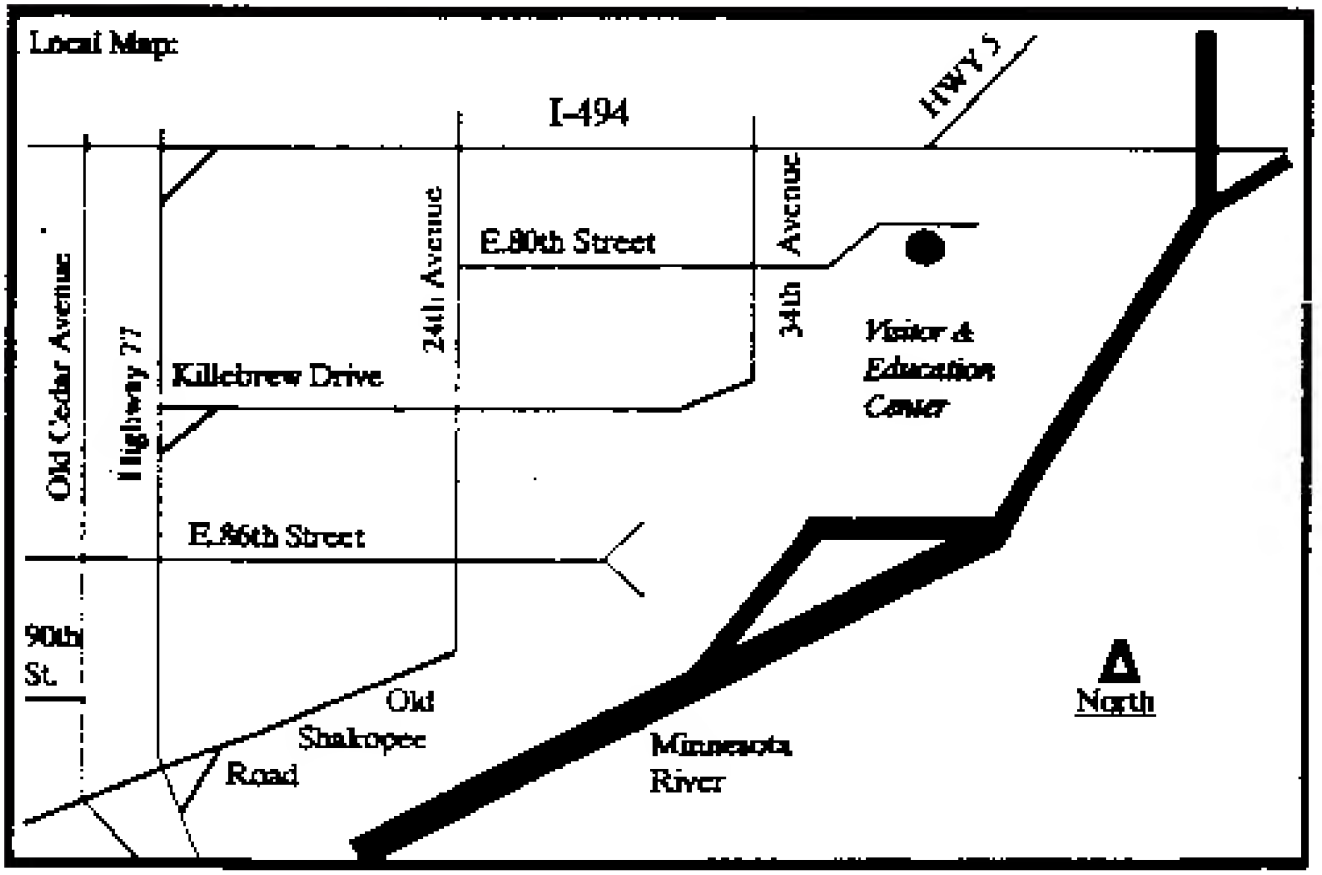

Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 22 Number 3 **Spring 2003**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May and June. Check the Web site for more program information.

May 1: "Rainwater Gardens," by Fred Rozumalski; **Plant of the Month:** *Malaxis unifolia* (green adder's mouth), by Otto Gockman.

June 5: "Shoreline Landscaping," by Peter MacDonagh; **Annual plant sale.**

Prepare native plants now for June 5 sale

Do you have extra native plants that you can bring to the MNPS sale? If you dig and pot them in May, they will have time to adjust to their pots and become strong transplants. Each plant in the sale must be potted and labeled. They must be from your garden or raised from seed. It is illegal to take them from the wild.

Volunteers who help with the sale and those who bring plants comprise the first two groups in the line to choose plants. For more information or to volunteer, call Gerry Drewry at 651-463-8006. The sale is the annual MNPS fundraiser.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

Caution! Not every shrub is buckthorn

by Karen Schik
Restoration Ecologist, Friends of the Mississippi River

Concerned citizens have done an excellent job in recent years of getting the word out about buckthorn. It seems that awareness is very high, and there has been a virtual tidal wave of eager volunteers attending dozens of buckthorn removal events throughout the Twin Cities area. So what could be wrong with that? Nothing! It's all great, except for one very important thing. In our eagerness to rid our woodlands of this invasive shrub, we are often removing some of the very native shrubs we are trying to protect and nurture.

Janet Larson, a professional native plant landscaper and self-proclaimed buckthorn buster, has observed several buckthorn removal projects that resulted in a virtual clearcut of the shrub layer. Gone were the species that most closely resemble buckthorn, like black cherry, American plum and pagoda dogwood. But also gone were hawthorn and bitternut hickory, which bear little resemblance to buckthorn. It became clear to her that we need to get the word out to be careful. If you are overseeing a removal project, make sure that your crew can positively identify buckthorn in all stages. If there is any doubt, a knowledgeable person should flag the site prior to cutting. Flag the native shrubs in a dense buckthorn stand so they are not cut.

The following description may be helpful in distinguishing buckthorn from other species.

Common buckthorn has ovate-elliptic leaves that are smooth on both surfaces and have minute teeth on the margins. They vary from rounded to pointed on the tip, and the leaf surface appears slightly wavy. The veins curve so they are almost parallel to the leaf margin. Leaves are alternate or sub-opposite. Compare the leaves to similar species to identify distinctive characters. Plum, for instance, has straighter veins and double-toothed margins. Pagoda dogwood has entire (smooth) leaf margins. The veins also curve like buckthorn, but follow the leaf margin all the way to the tip. Buckthorn leaves remain on the plant well into the fall, when most other trees and shrubs have dropped their leaves.

Buckthorn bark is gray to brown with prominent, horizontal, lighter-colored lenticels. I recognize the bark also by a very slightly bronzy

Continued on page 5

From the president

In recent months our society has been wonderfully energized by the efforts of new and old enthusiastic members and by a really fired-up board of directors. The whole board has been inspired to work harder, longer, better at our missions of education and preservation, and at finding and keeping new members.

Doug Mensing, Janet Larson, and Jason Husveth have contributed untold numbers of hours, leading field trips and keeping MNPS visible at a variety of gatherings. Dianne Plunkett Lathham, newly elected to the board, and Janet Larson, are among those who have been absolutely unstoppable forces in the fight against invasive buckthorn and other aliens. David Johnson, our treasurer, is doing many time-consuming and difficult jobs for the society, such as getting the monthly postcard out, researching insurance issues, etc., to the point that he is indispensible! Linda Huhn is a virtual powerhouse as program chair, community watchdog, and idea-generator.

I could list many other names — numerous folks on and off the board not mentioned here have put in long hours on many other tasks and have contributed ideas, as well as time, to help MNPS.

My point is that we have lots of energy and expertise — all helping achieve the goals of MNPS. Let's hope this energy continues and multiplies. Don't forget to recruit new members!

by Esther Mclaughlin

Get this by e-mail

Members can now receive the *Minnesota Plant Press* by e-mail. Everybody who supplied an e-mail address on their membership application received a copy of the Winter 2003 issue by e-mail. If you would like to receive the newsletter electronically, instead of by regular mail, write to mnps@HotPop.com and say you want to subscribe. Indicate whether or not you want your e-mail address included in our membership directory. Each issue will be attached to an e-mail message as a PDF file. A link will be provided to get a free PDF reader. E-mailing newsletters should shorten the delivery time by about two weeks and will reduce printing and postage costs. We encourage you to try this. You may change and get the newsletter mailed to you at any time.

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

MNPS Board of Directors

President: Esther McLaughlin, mclaugh@augsburg.edu

Vice-President: Linda Huhn,

Secretary and Conservation Committee Co-Chair: Meredith Cornett, mwc@duluth.com

Joel Dunnette, dunnette.joel@mayo.edu

Field Trip Chair: Jason Husveth, Jason.Husveth@ttemi.com

Janet Larson, janetl@supremecompanies.com

Douglas Mensing, dougm@appliedeco.com

Conservation Committee Co-Chair: Ethan Perry, etperry@hotmail.com

Karen Schik, kschik@fmr.org

Treasurer: David Johnson, MNPS@HotPOP.com

Listserv Coordinator: Charles Umbanhowar, ceumb@stolaf.edu

***Minnesota Plant Press* editor: Gerry Drewry,** 651-463-8006; fax, 651-463-7086; gdrewry@infionline.net

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Technical or membership inquiries: MNPS@HotPOP.com

Conferences and symposia

Native Orchid Conference

A Native Orchid Conference will be held on the Bruce Peninsula in Ontario, Canada, June 14-18. It will include two days of presentations at McMaster University in Hamilton, Ontario. The last three days of the conference will include field trips on the Bruce Peninsula, about 100 miles north of Hamilton. The peninsula and Flowerpot Island at its tip are legendary places for botanizing and birding. There are 43 species of native orchids documented on the Bruce, which makes it one of the richest North American native orchid areas outside of Florida. Information is at www.OrchidWeb.org

Natural Areas Symposium

A free symposium, "Landscaping and Maintaining your Natural Area," will be held July 9 at Arneson Acres, 4709 West 70th St., Edina. It is sponsored by the Edina Garden Council and League of Women Voters of Edina. Three of the speakers are current or incoming MNPS board members — Janet Johnson, Dianne Plunkett Latham and Douglas Mensing. Other presenters are Arlene Savory of Savory's Gardens, Edina, and Bob Huffman, Prairie Restorations, Information is at www.lwvmn.org/LocalLeagues/Edina

Native Plant Summit VII

Native Plant Summit VII, "Planning Native Landscapes — Urban and Rural," will be Sept. 16 – 18 at the Best Western Doublewood Inn, Fargo, ND. Information is at www.ag.ndsu.nodak.edu/ngpsrm

Invasive Plants Symposium

An Invasive Plants Symposium will be held Sept. 27 at Madison, Wis., during the Natural Areas Conference. The symposium is co-hosted by the Invasive Plants Association of Wisconsin. Conference updates will be posted at www.naturalarea.org

Two wildflower field trips planned for May

Spring Wildflower Weekend

Jason Husveth has organized a weekend wildflower trip to the Whitewater State Park and Whitewater Wildlife Management Area in southeast Minnesota Friday evening, May 9, through 1 p.m. Sunday, May 11. For about four hours on Saturday morning he will lead a hike up a ravine in the Whitewater Wildlife Management Area. Morel and wildflower hikes will be held from 1 to 3 p.m. Dave Palmquist, park interpreter, will give a talk at the visitor center on the history of the Whitewater River Valley at 4 p.m. At 8 p.m. Saturday there will be a slide presentation at the interpretive center on morel mushrooms. There may be an evening walk to some goat prairies or limestone bluffs or a spring amphibian walk. Sunday morning there will be another wildflower/morel walk.

Group Camp Site 1 has been reserved MNPS. For additional information and to register, go the society's Web site, www.stolaf.edu/depts./biology/mnps.

Spring wildflower walk

Saturday, May 31, from 9 a.m. to 12:30 p.m., botanists and MNPS board members Jason Husveth and Douglas Mensing will lead a spring wildflower walk in the Louisville Swamp portion of the Minnesota Valley National Wildlife Refuge. They will explore a floodplain forest, maple-basswood forest, wet meadows and dry prairies. Attendees should bring their own wildflower guides, hand lenses, magnifying glasses, a sack lunch and water. The walk is co-sponsored by the society and the refuge. There is no charge.

The tour will start promptly at 9 a.m. at the main Louisville Swamp trailhead, about 4.5 miles south of Shakopee. To register or for more information, contact Jason Husveth at Jason.Husveth@ttemi.com or Douglas Mensing at dougm@appliedeco.com

New MNPS board members elected

Shirley Mah Kooyman, Daniel Mielke and Dianne Plunkett Latham were elected to the MNPS Board of Directors at the March meeting. Their terms are for 2003 - 2005 and will begin in June. Karen Schik was previously appointed for 2003 – 2005 to complete Don Knutson's term. Retiring board members are Secretary Meredith Cornett, Ethan Perry and President Esther McLaughlin. The new board will elect officers at its June meeting.

Shirley Mah Kooyman is adult education manager for the Minnesota Landscape Arboretum. Dan Mielke's property includes marshes and ponds in McLeod County. He is also involved in restoring a 29-acre prairie and creating a 25-acre woodland on his uncle's farm. Dianne Plunkett Latham, a member of the League of Women Voters and the Edina Garden Club, is leading the buckthorn battle in Edina.

'Art in Bloom' is wild

Wildflowers/Wild Flowers is the theme of the 20th annual "Art in Bloom" exhibit at the Minneapolis Institute of Arts April 30 - May 4. C. Colston Burrell, a landscape designer and former active MNPS member who moved to the Southeast, will speak at 9:30 a.m. May 2 on "Nature Meets Zonal Denial: a Tale of Two Gardens."

Traffic, season of year affect impacts of harvesting in aspen forests

Abstract of a talk by Alaina L. Berger at the Feb. 6, 2003 meeting. She is community forest ecologist, Minnesota Department of Natural Resources Metro Region.

We investigated the impacts of disturbance, as a primary factor influencing tree regeneration, diversity and floristic composition of understory vegetation, in clearcut sites within aspen-dominated cover types in northern Minnesota.

We explored disturbance effects for areas with high, intermediate, and low disturbance levels (*i.e.*, harvesting traffic), as represented by soil compaction and overstory removal. We also explored the effects of disturbance timing (summer or winter harvest) on the vegetation. We characterized understory vegetation within sites using five 60-square-meter plots along the disturbance gradient: landings (high disturbance), skid trails (intermediate disturbance), and areas off the skid trails (low disturbance).

Within-site impacts mixed

Results indicated that within-site disturbance patterns created by clearcut harvesting were quite heterogeneous. Soil properties and regeneration densities varied with level and timing of disturbance. Understory species composition and richness also varied with level of disturbance. High disturbance levels had high richness values, in part because of a high proportion of ruderal species.

In general, species composition within the high and intermediate levels of disturbance (landings and skid trails) was similar. The composition of these two levels differed from that of the low disturbance level plots (off skid trails), indicating that simple traffic did not impact vegetation composition as much as an established skid trail. The impacts of different disturbance levels resulted in the same general pattern, regardless of harvest timing.

However, the sites with greater species richness on low disturbance plots (winter-harvested sites) were less altered (maintained greater variability in composition) than the sites with lower diversity (summer-harvested sites), which is relevant when we consider that the initial and remnant understory vegetation of harvested sites has a large role in the rate of recovery of the plant community.

Spatial layout important

We hypothesize that the areas with least disturbance might act to enhance the rate of recovery by providing a source of interior forest species to re-colonize the site. The results suggest that it is important to limit not only the amount and level of disturbance, but also to consider the spatial layout, thus maintaining a spatially connected network of remnant forest patches large enough to contain interior forest species.

In summary — harvesting, even clearcutting, is a complex disturbance, and generalizations about the response of understory vegetation to clearcutting have to be made very carefully. Clearcutting leads to a complex matrix of disturbance levels.

Landings, skid trails vulnerable

Landings and skid trails are highly disturbed, thus understory vegetation on these areas shifts toward invasive, pioneer species, typically grasses and sedges. Thus, landings and skid trails might facilitate establishment of invasive species that have the potential to invade undisturbed portions of the sites later.

Areas not in skid trails and landings (most of the site) are less affected and maintain a more stable vegetation community. In the long term, as stands develop, this stability might allow for reintroduction of species on skid trails and landings that were displaced during harvesting.

Winter harvest sites more stable

The sites selected for winter harvest have intrinsically higher understory vegetation diversity than sites harvested in summer, likely because of soil moisture conditions. In addition, the disturbance related to harvesting, as measured by soil compaction, is less on sites harvested in winter. Together, these factors result in a more stable vegetation community on sites harvested in winter.

There are a many questions we cannot address through such a retrospective study. We have initiated a second phase of the project set up as a case study in which the pre-harvest conditions, harvesting operations, and post-harvest development are closely monitored using GPS to produce a map of harvesting impacts across the site. The goal of this phase is to be able to develop monitoring criteria based on how pre-harvest site conditions change over time and specifically characterize the extent of the impact based on these changes.

In summary, the results of this project can be used to compare silvicultural systems as the area

impacted by harvesting and the amount of residual overstory varies by harvesting intensity.

Co-authors of this abstract are Klaus J. Puettmann, Forest Science Department, Oregon State University, Corvallis, Ore.; Melissa Arikian, Emmons and Oliver Resources, Inc., Lake Elmo, Minn.; George Host, Natural Resources Research Institute, University of Minnesota, Duluth; and John Zasada, USDA Forest Service, North Central Forest Research Station, Grand Rapids, Minn.

ID system for Minnesota sedges is available

A Flora ID system for Minnesota *Cyperaceae* and *Juncaceae* (sedges) is now available. This is the first portion of a comprehensive plant identification key for all plants known to be in the state. Bruce Barnes of Flora ID Northwest is working in conjunction with XID Expert Systems on the project. He has completed keys for northwestern United States and British Columbia.

The keys identify native and introduced species, including all trees, flowering plants, grasses, grass-like plants and spore-bearing plants known to exist within the area. Information about the project is at: www.xidservices.com/FID

For Minnesota information, contact Janet Elaine Ebaugh, associate director, Katharine Ordway Natural History Study Area, Macalester College. Send an e-mail to her at ebaugh@macalester.edu or leave a message on 651-455-6204.

Dolly is needed

The MNPS has an excellent display board, but it is not used as much as it could be because it is heavy and bulky. If you have a surplus dolly, or know where MNPS could pick up a secondhand one for little or nothing, please contact Doug Mensing, 952-925-3359, or Dianne Plunkett Latham, 952-941-3542.

Anti-native seed bills considered by Legislature

Two bills that would forbid use of state funds for purchasing and planting native seeds along highway rights of way have been introduced in the Minnesota Legislature. Rep. Chris DeLaForest, chief author of the first bill, H.F. 902, characterized it as a cost-saving measure. Sen. Julianne Ortman is chief author of the companion bill, S.F. 1250, which was introduced later.

Rep. DeLaForest tabled the House bill after a March 26 hearing by the Transportation Finance Committee and then revised it. At the hearing, former MNPS Board Member Deb Anderson testified about water and ecological impacts it would have on her county. Other members also attended the hearing.

The original bill stated: "A road authority may not spend money from the trunk highway fund, county state-aid highway fund, or municipal state-aid street fund to purchase native grass seeds." Opponents testified that the prices quoted by proponents were inaccurate, that federal permits specify the (expensive) seeds that must be planted in wetland mitigation areas, and that costs of wildflower seeds are the problem, not grass seeds.

The revised bill reads: "No state agency or soil and water conservation district may require the planting of native grass seeds or native wildflowers as a condition for the issuance of a permit to any local government unit. Paragraph A does not apply to grass or wildflowers planted in replacement wetland acres."

Although the bill now exempts many of the affected wetlands, it would not require Yellow-Tag certified (native) seeds in prairie restoration projects along highways. Seeds of cultivars, non-native and invasive plants could be planted on Prairie Passage routes and adjacent to Scientific and Natural Areas.

Roy Robison and Dianne Plunkett Latham have been monitoring progress of these bills. When this issue of the *Minnesota Plant Press* was printed, no further hearings had been scheduled. Rep. DeLaForest could let the bill die, withdraw it, or have it included in the large transportation finance bill.

Buckthorn look-alikes

Continued from page 1

tone. The bark becomes flaky as the plant gets older — compare it to black cherry, which also flakes. The slender gray twigs end in short (1/4-inch) sharp spines, but the plant has no true thorns. The spines are most evident in the fall, but may be nearly absent in the spring. Hawthorn, in contrast, has very distinct, long (1- to 4-inch) thorns along the sides of the branches.

Glossy buckthorn has leaves similar to those of European buckthorn, but it has smooth bark and no spurs. The upper leaf surface is shiny; the lower surface can be hairy or smooth, and their margins are entire, not toothed. The fruits are less numerous than those of European buckthorn, but both produce black berries in the fall.

If you are still unsure of a shrub's identity, break a twig or nick the bark. Both common and glossy buckthorn have a distinctive yellow inner bark and orange heartwood. Some helpful photos are on the internet. Go to http://tncweeds.ucdavis.edu/esadocs/franalnu.html

Once again, look before you cut! And seek help if you or your buckthorn co-workers are unsure of shrub identification.

What is sustainable spiritual design?

Douglas Owens-Pike, EnergyScapes, Inc., spoke on this topic at the June 6, 2002 MNPS meeting. He wrote the following article, which was printed in the April 2002 issue of the Minnesota Nursery and Landscape Association News.

As spring approaches, here is a fresh perspective on our design practice. First, sustainable, in this context, refers to landscapes that seek to conserve an ecological balance by avoiding depletion of natural resources. Second, spiritual refers to how individuals connect between our inner soul and our outer physical surroundings. For our clients who are seeking greater comfort from their land, combining these two perspectives yields many benefits.

Sustainable designs require less intensive care and minimize use of resources. This allows our gardening clients more time to relax and enjoy the calming, renewing spaces we design for them. We can help clients identify spiritual components that they enjoy. Perhaps, by adding some of their favorite plants or other features that they identify as spiritual, we may encourage a deeper connection to their land. This approach can balance healing inner emotions with renewing the earth. This philosophy takes a holistic and inclusive approach to both people and nature.

In addition to being sustainable, this approach must meet all the design/site criteria for any successful landscape. While meeting those criteria, sustainable designs also minimize the need for irrigation, fertilizer and pesticides. Sustainable designs also embrace diversity of species, local ecotypes, and allow for reproduction. This approach benefits people as well as our environment. The hectic pace of modern lives, together with events that challenge us emotionally, have increased demand for landscapes that include a spiritual component.

Each of us has a different list of what we consider sacred or spiritual. This is a result of our varied religious backgrounds and traditions. The emphasis in a spiritual design is to help our clients make this emotional connection in their garden — a place they can see or visit daily. Spiritual designs encourage a slower pace. These gardens can be designed to focus more attention on sacred aspects. These features can help garden visitors stay emotionally balanced. Including sustainable spiritual components in our designs will help our clients, our community, and our planet.

The best designs meet as many of our clients' needs as possible. We seek to create gorgeous displays of flowers throughout the growing season. We must respond to existing architecture while proposing changes that embrace all site constraints. Clients also want us to show them the latest popular trends.

How do we discover what clients want? One way is to ask clients to go within themselves, asking the question, "What landscapes make their heart sing?" Describing this internal image can be simplified if they pull attractive photos from magazines or books. They may not know the names of plants, but photos allow them to show what forms and colors they are drawn to or repelled from. As designers, we can recommend the specific plants and materials that will work best, once we know their idealized landscape. The decision about the best plants combines these client preferences with our knowledge of site factors, including sunlight, soils, available moisture, and history of land management. Respecting these criteria yields landscapes that persist with the least care and delight the client in all seasons.

Sustainable designs usually include native plants. These plants that evolved in your region, the local ecotype, will be best adapted to local climate conditions. These native ecotypes have the best resistance to our increasingly unpredictable weather. Before selecting a species list, take time to analyze soils. Examine if the soil has been modified by construction, farming, road salts or other activities. If you find these problems, tilling composted organic matter into the surface, down at least six inches, will help recreate a living, healthy zone for root growth. All plants require vigorous roots to thrive with the least care.

Unlike named horticultural varieties, native plants have not been bred for sustained blooming, so it is essential to include a diversity of species to offer color in all seasons. We are fortunate that there are now several nurseries that provide us with this native diversity. It is possible to have native plants in bloom from April to November in our region. Because they are not selected for showy flowers, some species require a larger mass to stand out.

Native species are resistant to drought and pests, and don't require fertilizer. They produce nectar that attracts gorgeous butterflies. Prior to settlement, oak savanna covered the largest portion of our Metro region. Less than 0.1 percent of that plant community exists today. Therefore, every plant we add to gardens from this habitat provides an important refuge for butterflies and the web of life that depend on these plants.

Opening to the knowledge within us is a key to successful spiritual design. As Julie Messervy says in *Inward Garden,* each of us has a garden within us, a personal place that is a blend of our imagination, memory, character and dreams. We

should know both our own and our clients' inner gardens. The goal is to create spaces where harmony flows easily between the landscape and people who visit. This requires getting to know your site, feeling it intimately, perhaps through sitting or walking meditation.

Some designers feel that if we are able to create a space that is set apart from normal life it becomes sacred (Peg Streep, *Spiritual Gardening.*) This space would encourage moving beyond control we normally exert. It would allow visitors to see and respond to the larger patterns and life cycles. Spiritual gardens enable us to more clearly see all the interconnections, not just the beginning and the end. They engage all the senses as we help visitors welcome the complexity of life with patience and humility. These are not new concepts. They are becoming more popular.

Buddhist philosophy teaches the concept of "Heaven on earth" is possible by releasing control and feeling the beauty in each moment. Feng Shui is an application of this philosophy. It is an ancient design practice that seeks harmony with the divine. According to Minerva Nguyen, a teacher of Feng Shui garden design, this practice encourages us to open our hearts, turn to the natural environment, and connect more deeply with the land beneath us.

In the 19th century, Frederick Law Olmsted expressed it this way, "The enjoyment of scenery employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration of the whole system."

Olmsted created an enduring legacy of public parks. He designed Central Park in New York City and trained designers like Theodore Wirth. The City of Minneapolis hired Wirth to develop our park system over 100 years ago. During this time of uncertainty and change, it is important that we apply these perspectives to our practice. We have the ability to change the earth, and how people relate to it, one garden at a time, perhaps to create a legacy as enduring as Olmsted or Wirth.

Buckthorn reduces forest leaf litter

A recent study by DePaul University professor Liam Heneghan and the Lake Forest Open Lands Association reveales that buckthorn leaf litter has high nitrogen content and decomposes more rapidly than the litter of most of Chicagoland's dominant native species.

Buckthorn chokes out healthy plant communities by blocking sunlight. But that's only part of the story. Although nitrogen is a critical soil nutrient, the excess nitrogen from decomposing buckthorn leaves causes a significant increase in the rate of decomposition. Heneghan found that, as buckthorn spreads and dominates a preserve, the rate of decomposition of all forest floor material increases dramatically, adding large amounts of nitrogen to the soil very quickly and modifying the soil composition. He concluded that this could have serious negative effects on the survival of many native plants, even after the buckthorn is removed.

Heneghan found that forest leaf litter virtually disappears each year in the high nitrogen conditions found in dense buckthorn thickets. The disappearance of the leaf litter may cause local extinctions of several invertebrate animal species. "This loss may have implications elsewhere in the food chain, affecting the diversity of mammals and birds, for instance," he said. Heneghan and his research team conducted research in Shaw Woods, a preserve of the Lake Forest Open Lands Association.

Plant Lore

by Thor Kommedahl

What is wild geranium?

Wild geranium is *Geranium maculatum*, in the geranium family and a frequently found species in Minnesota. It is also known as cranesbill, because geranium is the Greek work for crane used by Dioscorides; *maculatum*, of course, means spotted, because of light-green blotches seen on older leaves

Why is it called cranesbill?

The shape of the fruit was thought to resemble the bill of a crane.

What is its relation to geranium grown as house plants?

The florist's geranium is in the same family but it is a different genus, *Pelargonium. Pelargonium* means stork, referring to the fruit shaped like a stork's head

What is the plant like?

In spring basal leaves emerge as a rosette from somewhat woody rhizomes. Lower leaves are long-petioled, and upper leaves are opposite, but all are generally five-parted. A flower stalk appears with five pink to lavender petals.

Are the flowers unusual?

Well, yes, in the way seeds are dispersed. When fruits are ripe, the five parts of the fruit split and the seeds, being under tension, are shot out several feet from the mericarps, sometimes all at once. If you are there at the right time, you can touch them to release the tension and watch seeds being dispersed.

Where does it grow?

It grows in several counties deep on both sides of the Mississippi River. It tolerates shade in open woods and blooms from April through June.

Did American Indians value it?

Yes, roots and rhizomes, rich in tannins, were dried and ground to a powder that was used as an astringent and styptic. Scully reports that a tea made from cranesbill was probably the most widely used medium for birth control.

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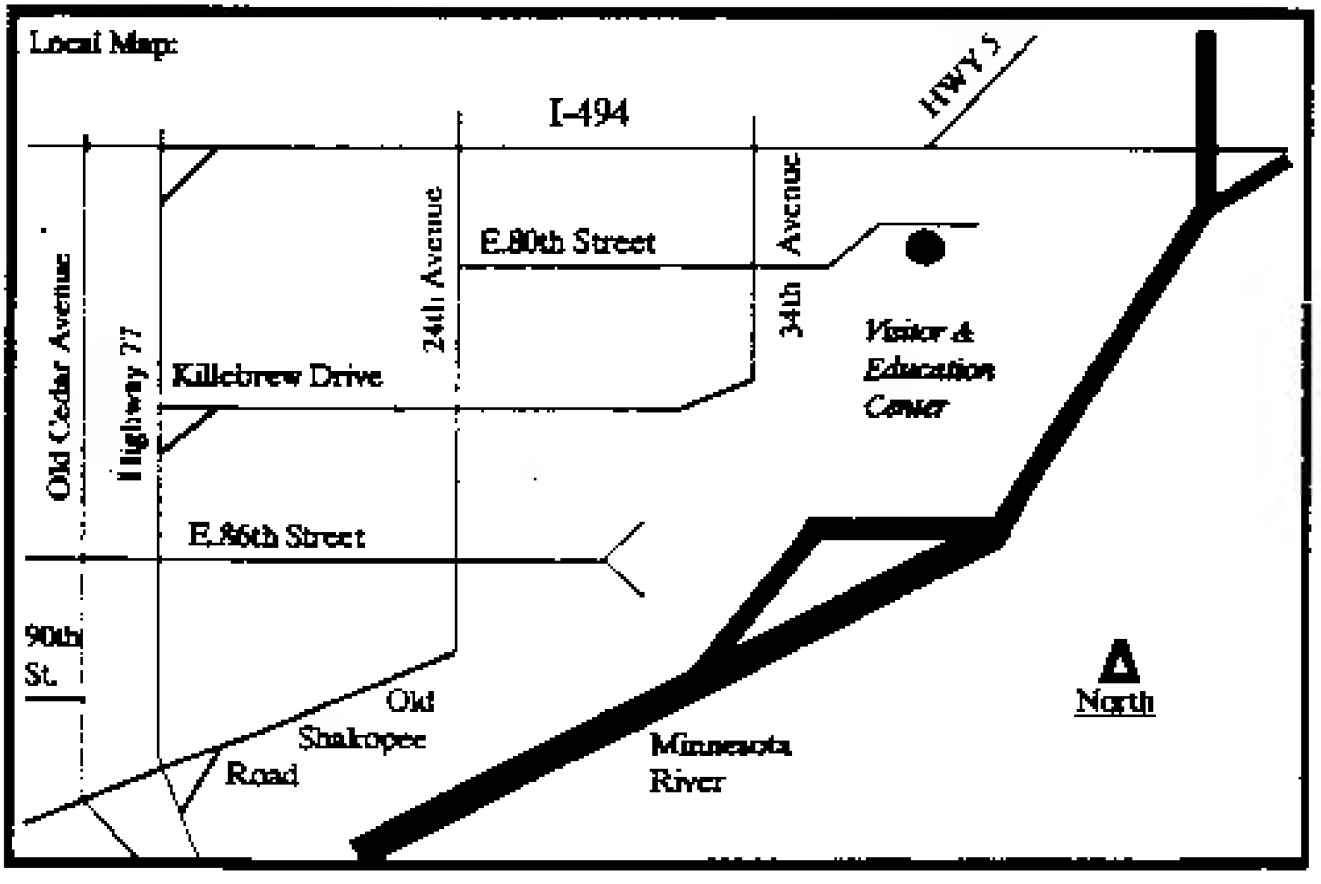

Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 22 Number 4 **Summer 2003**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May and June. The next meeting will be Thursday, Oct. 2. Check the Web site for more information on programs.

Dues for individual members are changed

At their June 22 meeting, MNPS board members voted to raise individual dues from $12 to $15. No other categories were changed. Family memberships (two or more related persons at the same address) remain $15. Dues for full-time students and seniors (62 or over or retired) are $8; institutions, $20; donors, $25.

The membership year starts Oct. 1. A member registration form is on page 7 of this issue.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

MNPS Listserve

Send a message that includes the word "subscribe" or "unsubscribe" and your name in the body of the message to:
mn-natpl-request@stolaf.edu

Member finds dwarf iris new to Minnesota

by Ron Huber, MNPS member and museum associate, Science Museum of Minnesota.
[Figures 1 and 2 are included as an insert in the mailed copies of this newsletter and as PDF files with the e-mail edition.]

On May 30, 2002, while my wife, Cathy, and I were exploring various portions of Minnesota Hill in northern Roseau County, we discovered a small patch of a beautiful little dwarf iris that we could not identify. Betsy Betros, our traveling companion from Kansas, took several photographs of the overall patch, plus some individual plants, including a few nice close-ups of the sepals. Most of the plants appeared to be 10 – 12 inches tall, just barely above the grasstops.

Robert Dana of the Minnesota DNR Heritage Program examined the 35 mm slides and identified the iris as the Eurasian *Iris pumila*. Figure 1 is a group shot, while Figure 2 is a close-up of a single flower. Note the small patch of erect white "beard" in the center of each sepal in Figure 2, a distinguishing feature of this species. Robert said that the iris has been previously reported in Maine, Michigan, Wisconsin, Illinois and Missouri. In Michigan, Voss (1972:431) records it from two lower peninsula counties, noting, "apparently escapes from cultivation or perhaps only persisting where dumped." The Roseau County record appears to be the first known for Minnesota.

Minnesota Hill is a deep sandy ridge that runs northeast-southwest and is located roughly 10 miles north and four miles west of the city of Roseau. It is also about four miles east of the little community of Pinecreek. Minnesota Hill is apparently a three-mile-long remnant of one of the beach lines from glacial Lake Agassiz. It is a very interesting area, with an amazing floral and faunal diversity. We seem to find something different on every visit. The *Iris pumila* was in the southeast quarter, Section 30, Township 164 North, Range 40 West, less than half a mile south of the International Boundary obelisk.

The area immediately south of this boundary marker is being slowly excavated for sand, and what was once a level, sandy, conifer-studded barren in the 1970s is now, unfortunately, a very large pit some 15 –

Continued on page 3

Jason Husveth elected president of the MNPS

Northern Tallgrass Prairie bill supported in Senate

Sen. Tom Harkin (D) of Iowa announced July 9 that $470,000 in funding for the Northern Tallgrass Prairie National Wildlife Refuge was included in the Interior Appropriations bill. The bill was to go through the full Senate Appropriations Committee and was expected to be voted on in the Senate later in July. Harkin is a senior member of the committee.

"These funds are critical to the refuge's efforts to acquire and preserve additional land," he said. "If the refuge doesn't purchase the land soon, other buyers may take over the land."

The funds will be used to buy land in Western Minnesota and Northwest Iowa to preserve native prairie land. The goal is to preserve 25 percent of the remaining prairie through permanent conservation easements. Four species of plants and seven species of animals whose natural habitat is in this area are listed as endangered or threatened.

Jason Husveth was elected president of the Minnesota Native Plant Society at the June 22 board meeting. Linda Huhn was re-elected vice president. She is also program chair. Joel Dunnette and Karen Schik will share the duties of secretary. David Johnson was re-elected treasurer and membership chair.

Postcard volunteer needed

The board is seeking a volunteer to prepare and mail the meeting-notice postcards. Labels will be supplied. For more information, contact David Johnson at 763-571-6278 or MNPS@HotPOP.com

Plant-of-the-Month

Would you like to learn more about a favorite native plant? Linda Huhn, program chair, would like your suggestions for plants-of-the-month.

Do you have information on a native plant that you could present during the plant-of-the-month portion of one of the meetings?

Call Linda at 612-374-1435 with your suggestions for plants or to volunteer as a speaker.

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

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Fall prairie field trip to be Sept. 6

by Dan Mielke

I will lead a field trip to Peik's and Mielke's prairies in McLeod County on Sept. 6. The first site is a dry prairie; the second site is a wet prairie. The field trip will start at 9 a.m. The first site tour should last about two hours, while the second site tour can last into the afternoon. Feel free to bring water, snacks, or even a packed lunch.

From the Twin Cities, go west on Hwy. 212. Approximately 4.5 miles west of Glencoe the four-lane road becomes two lanes. Continue westward on Hwy. 212 for approximately four more miles. Ahead and to the west, a long, low, big hill with three clumps of trees on top will be visible. This hill is immediately south of Peik's prairie. As you see this hill, Hwy. 212 will bend towards the south and then come back to the west. At the bottom of this curve is a gravel road named Nature Ave. Turn right (north), cross the railroad tracks and the country road intersection. The prairie is on the left. Park on the right side of Nature Ave. This site is about 45 miles from Chaska. Directions to the second prairie site will be given out at that location.

Please feel free to bring a walking stick, as at this time of year there may be a few spiders in the grassland. Wood ticks will be non-existent. If we are lucky, we may be in the middle of the monarch butterfly migration. One year I saw as many as 250 butterflies clinging to an old willow tree on a windy day. Let's all hope!

I will try to limit this tour to 20 participants. If you have any questions, please contact Dan at wildmentha@yahoo.com. I am looking forward to this tour.

Friends of Springbrook rally to save the Fridley Nature Center

Supporters of Springbrook Nature Center in Fridley are in the midst of a campaign to save the 127-acre nature center. On June 23, City Manager William Burns recommended closing facilities at the center and cutting its staff of three full-time employees and one part-time maintenance worker. This would save the city about $300,000. A second threat is coming from council members who have proposed turning the park into a golf course or a housing development.

Burns said that if the budget cuts are made, the center would remain a passive recreational area. There would be no programs in the buildings, but trails would be maintained.

Springbrook has hosted nature programs since 1982. It has an interpretive center with live animal displays, hiking trails, wetlands, native prairie and oak forests. It attracts about 150,000 people each year, according to Siah St. Clair, director of the center.

In 2002 the center began a wetland restoration process with the assistance of grants from the Minnesota Pollution Control Agency, the Metro Council, the McKnight Foundation and neighboring cities. Springbrook Creek enters the Mississippi just above the location where Minneapolis and many of its suburbs take their water. As a result, Springbrook Nature Center's drainage and water quality problems affect residents of these municipalities. That restoration project is on hold until the fate of the center has been determined.

The campaign to save the center is being conducted by Friends of Springbrook. This organization was formed after Burns proposed the budget cuts. About 300 people attended a one-hour rally in front of Fridley City Hall July 10 to voice their support for saving the center. On July 14, about 250 people attended a city council meeting. The golf course proposal was on the agenda that night, but no decisions were made.

Friends of Springbrook is selling T-shirts, accepting donations and distributing lawn signs and bumper stickers. Their mailing address is P.O. Box 32722, Fridley, MN 55432. Information on the campaign is on the nature center's Web site, www.springbrooknaturecenter.org

Iris discovery

Continued from page 1

20 feet deep and several hundred yards across. We are attempting to find out who is doing this excavation, but it is probably for road maintenance in the county. On the county map, the site appears to be part of the Lost River State Forest, and we will make an inquiry there as well.

We thank Betsy Betros for permission to scan the slides, Robert Dana for the identification, for checking the literature and Web sites and for doing the scans, and Deb Schoenholz, science publications specialist, Science Museum of Minnesota, for printing the two-sided color inserts.

References:

Voss, E.G., 1972, "Michigan Flora, Part 1, Gymnosperms and monocots." Cranbrook Institute of Science, Bloomfield Hills, Mich.

USGS Plants Database: http://plants.usda.gov/cgi_bin/topics.cgi [IL, ME, MI, MO, WI]

Wisconsin: www.botany.wisc.edu/wisflora/hand/IRIPUM.gif

Orchid infatuation: Teenager's tiny hobby creates a big impression

by Lynn Underwood, Star Tribune Staff Writer

[This article was printed in the June 18, 2003 issue of the Star Tribune. Otto Gockman is a member of the MNPS.]

Otto Gockman uses typical teen expressions to describe his atypical hobby — growing orchids. But the 17-year-old isn't cultivating the big-bloomed phalaenopsis and cattleyas that sit on many coffee tables. He's enamored with pleurothallids, which are miniature – almost microscopic — orchids that he grows on cork or in tiny pots inside his basement orchidarium.

"This one has hairs that dangle and blow in the wind," Gockman said, gently touching the minute brown petals of a *Pleurothallis ornate.* An orange and yellow *Lapanthes pecunialis* resembles "a little jewel," he said. The long Latin names of the tiny orchids flow easily off his tongue, like the lyrics to a favorite pop song.

"Every species of orchid is so different in some way," Gockman said. "It's hard not to be intrigued by them."

Like larger, more common orchids, the pleurothallids boast long-lasting, vibrant colored blossoms in other-worldly shapes. But you may need a magnifying glass to see them; most are smaller than a thumb nail.

Gockman credits a photo in an American Orchid Society magazine for igniting his passion for pleurothallids.

"A white one that was so small and different caught my eye," he said. He ordered the tiny *Ornithocephalus inflexus* and it launched his exotic orchid collection.

Miniature orchids thrive in the mountain forests of South and Central America, and many grow on moss-covered trees. The orchidarium built by his dad, Terry, re-creates the environment in his basement with a mister, grow lights and a humidifier.

But Gockman's orchid obsession started much closer to home. When he was 13, he discovered native orchids growing in Minnesota's woodlands and bogs. Hiking trips to photograph birds turned into hiking trips to photograph wild orchids. Today, yellow lady's slipper, showy orchis and green adder's-mouth are among the native orchids he grows in his back yard. Gockman also rescues wild orchids by moving them from areas where new housing developments are being built.

A mother knows

His mother, Jeanne Schacht, knew early on he was a budding naturalist. He was bird-watching by the time he was in kindergarten. And there were early symptoms of orchid fever during a 1999 trip to Canada.

"We were looking for elk in a bog," she said. "All of a sudden Otto saw a tiny pink orchid and started crawling around on his hands and knees looking for more. We were there for three hours."

It's no surprise that Gockman plans to study botany in college. "My dream job would be to discover new orchids in the rain forests around the world," he said.

For now, the Como Park High School junior is working part time at Orchids Limited in Plymouth, watering, repotting and helping in the lab. "I like being surrounded by orchids and I'm continuously learning more about them," he said.

"Otto has a great enthusiasm for plants," said owner Jerry Fischer. "Sometimes he gets side-tracked and stops to admire their beauty and diversity. Then it's 'where's Otto?'"

Gockman said it's easy for him to get carried away with orchids, especially the under-appreciated and less-cultivated *pleurothallids.* "I'm doing my part in keeping the underdog plant around," he said.

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Dakota County project receives award

The successful Dakota County Farmland and Natural Areas Project received the 2003 Merit Award from the Minnesota Chapter of the Soil and Water Conservation Society "for partnerships formed to accomplish perpetual conservation easements on farmland and natural areas in Dakota County."

As a result of this project, voters in November 2002 approved a $20 million bond issue to preserve some of the most significant areas in the county. Applications to preserve farmland are now being accepted. Applications to preserve natural areas will be received this fall.

Field trips feature wide variety of flowers

Spring Prairie tour

by Dan Mielke

On June 29 I led a field trip to two prairie sites in central Minnesota. One is a dry prairie owned by my uncle, Walter Peik. It consists of a three-acre sandy hilltop and 25-acre dry prairie restoration. The second site is a 20-acre wet prairie with ponds and sedge and cattail marshes, with semi-mesic wet areas next to a shallow mud bottom lake. I own this prairie.

At Peik's prairie we saw meadow garlic, ox-eyes and wild turnip in bloom. In the restoration area I have been hand-broadcasting seed from surrounding prairie remnants. Some, like the wild garlic, blue bottle gentian, and fragrant giant hyssop, have taken hold readily. Others, such as the blazing star, side oats grama, and wild onion, will be noticeable later in summer. There is a broken tile area in which I have managed to put a few wetland plants. Great blue lobelia thrives here. I added plugs of cord grass, which are now spreading out. But the overwhelming features of this restoration are the stands of big bluestem and Indian grass, which had come into this area naturally. These grasses will be just grandiose in the fall tour. There are also woody type plants. Wild prairie rose, false wild blue indigo, and lead plant are taking hold.

We moved to the wet prairie site, where we lost one person to bobolinks. Swamp milkweed, wild field mint (native), and many types of sedges were in bloom. In somewhat drier areas were white camas, hedge nettle, and false Solomon's seal. White camas is a member of the lily family, with the stalk rising one to two feet above the ground, covered with 10 to 30 white blossoms. Hedge nettle has lavender colored flowers blooming at the top of the main stalk. We continued down to the edge of the lake. I am looking forward to fall, and I hope you can join the Sept. 6 tour.

Wildflower Weekend and Louisville Swamp Walk

by Doug Mensing

Whitewater State Park

The weekend of May 9 through 11, the MNPS sponsored a spring wildflower weekend at Whitewater State Park in beautiful southeastern Minnesota. Jason Husveth did much of his graduate school research in this part of the state, and he has explored some of the area's less traveled nooks and crannies in search of rare native plants. His knowledge of the park and the adjacent wildlife management area ensured that all who attended were rewarded with a fun and informative (albeit damp) weekend.

A small clan of native plant enthusiasts gathered at the group campground Friday evening. Immediately we were identifying orchids and other native wildflowers. Some of us even stalked a secretive woodcock.

Saturday morning additional folks brought the group to about a dozen people. Our first outing was into the Beaver Creek ravine. Starting in its headwaters, lush green spring vegetation blanketed most of the ravine slopes and bottomlands. Wood anemone, false rue anemone, spring beauty, Jacob's ladder, Dutchman's breeches, trout lilies, squirrel corn, toothwort, bishop's cap, bellwort, ferns, and sedges created carpets of color and texture, interspersed with gray limestone outcrops and bluffs. After returning to our campsite and following a mild hailstorm, we braved a goat prairie. Layers of clouds were blowing three different directions as we hiked up a steep slope to find bird's-foot violet, puccoon, and other bluff prairie species.

On Sunday we ventured into the lower reaches of Beaver Creek where we saw many of the same species we saw on Saturday, but were also treated to marsh marigold, sweet cicely, wild ginger, and large patches of wild leek. Some of the rare plants observed in this ravine included twinleaf, false mermaid, squirrel corn, and a rare sedge *(Carex careyana)*.

Louisville Swamp

On May 31, the MNPS sponsored a spring wildflower walk at Louisville Swamp, one of the U.S. Fish and Wildlife Service's units in the Minnesota River Valley. Jason Husveth and Doug Mensing led about 22 people on an informative walk through restored prairie and savanna, floodplain forest, and native oak woodland-brushland.

Blooming species on the restored prairie and savanna included prairie violet, prairie plum, blue-eyed grass, and false Solomon's seal. One participant identified a patch of kittentails, a state threatened plant. Common buckthorn had recently been removed from the woodland's understory as part of the savanna restoration work. Buckthorn resprouts, Virginia waterleaf, and poison ivy were seen in much of the restoration area.

The floodplain forest contained silver maple and cottonwood trees, with a dense groundcover of wood nettle. Canada anemone and several sedge species were near the edges of this forest. The native savanna and oak forest contained Pennsylvania sedge, black raspberries, wild geranium, and woodland phlox. Several patches of kittentails (previously unknown to the Minnesota DNR and the Refuge) were also found in this area. A small depression in this area contained yellow star grass and several sedge species.

Louisville Swamp is a fantastic place for the nature enthusiast, and if you were unable to attend the spring wildflower walk, we would highly recommend you visit during the late summer and fall months.

Plant Lore

by Thor Kommedahl

What is wild bergamot?

Wild bergamot is *Monarda fistulosa.* It is also called bee balm and horsemint because of its similarity to closely related species. It is a member of the mint family.

How did it get its names?

Monarda is named after Nicholas Monardes, a 16th century Spanish physician and botanist. *Fistulosa*, meaning hollow, refers to the tubular calyx. It is called wild bergamot because the scent is like that of oil of bergamot extracted from the bergamot orange. Oil of bergamot is used to flavor foods (Earl Grey tea, for example). Bumblebees, butterflies, and humming birds are attracted to the flowers.

What is the plant like?

It is an aromatic, rhizomatose, native perennial that grows in dry wood edges, thickets, and prairies throughout the state. The flowers are in dense heads and bloom from May to September. The calyx is tubular and bright (yet pale) lavendar. Leaves are opposite on the square stems, and plants are 2 to 4 feet tall.

Is it poisonous or medicinal?

Not poisonous but it has a variety of medicinal uses. American Indians made tea for treatment of colds, fevers, and heart trouble, and physicians used tea from leaves to expel worms and gas. (The oil is high in carvacrol which expels worms.) But it is not officially recommended today. Another species, *M. didyma* (Oswego tea), was used by the Shakers as a tea after the famous Boston Tea Party. Oswego tea has a citrus odor, while wild bergamot has a spicy, minty odor. Oswego tea, also native, grows in western Minnesota.

Why should we battle buckthorn?

by Dianne Plunkett Latham

Many of you may have participated in your community's buckthorn abatement program last fall. If so, you realize that buckthorn has been declared a noxious weed by the State of Minnesota. Many of your neighbors, however, may yet need to clear their property of this pest. If they maintain this noxious weed on their property, it will reinfest nearby property. Birds carry buckthorn berries up to 1/3 mile. Several of you have asked me what information they should give their neighbors to encourage them to remove their buckthorn. The following is what I tell my neighbors. Please spread the word!

- Buckthorn berries, bark and roots are toxic. The berries cause severe cramping and diarrhea in humans. Keep small children out of areas where buckthorn berries fall, as the blue/black berries may be mistaken for blueberries and accidentally eaten.
- Buckthorn is a starvation food for birds. It causes diarrhea and weakens them. The blue stains on your house and sidewalk are the result of droppings from birds eating the berries. Bird numbers decline in areas infested by buckthorn, because food sources and nesting sites are greatly reduced.
- Buckthorn has an allelopathic chemical in its roots that suppresses the growth of surrounding plants, much like black walnuts do. Wildflowers and tree seedlings are greatly reduced.
- Buckthorn stays green 58 days longer than our native species, which gives buckthorn a competitive edge.
- Buckthorn, which has little fall color, is replacing our forests. Anything that is still green in October and November is buckthorn.
- Buckthorn eventually forms dense thorny thickets. It shades out other plants and provides cover for crime perpetrators in parks. Homeowners who say they want buckthorn for privacy should consider conifers, which offer much better privacy.
- Buckthorn infestations reduce property values. Savvy buyers ask that buckthorn be removed before sale, or ask to lower the sale price by the cost of buckthorn removal.

Buckthorn stumps must be sprayed with Roundup© (Glyphosate) at a minimum strength of 20 percent to keep the stumps from resprouting. Spraying must be done ASAP after cutting, and well before any rain. This stump treatment, however, won't work during bud break (late March to June 1). Sap flows in a predominantly upward direction in the spring, thus there is little intake of chemicals.

Ask your city to purchase Weed Wrench and Root Talon tools, which residents can borrow to uproot buckthorn trees up to 2-1/2 inches in diameter. These are only effective when the ground is not frozen.

Buckthorn seeds are viable for up to five years. Woodlands must be maintained annually for several years after buckthorn removal. This can be done by a combination of techniques including replanting and mulching, or mowing/brush cutting. For small areas, hand-pull seedlings. Large areas of buckthorn saplings up to three feet in height can be sprayed with a maximum strength of 3 percent Roundup© in late October or early November. Wait to spray until after at least two hard frosts (below 28° F), when everything else is dormant, but buckthorn is still green.

Professional buckthorn removal is the least expensive during the winter, when tree services may give steep discounts. The longer you wait, the more buckthorn you will have, and the more expensive removal will become.

Dianne Plunkett Latham, a MNPS board member, is the Buckthorn Abatement Steering Committee chair for the Edina Garden Council and the League of Women Voters of Edina.

Bell Museum has exhibit of nature art

More than 80 works of art inspired by threatened land and water sites in Minnesota and Wisconsin are on display at the Bell Museum of Natural History at the University of Minnesota. Entitled "Project Art for Nature: Close to Home," the exhibit opened June 21 and will continue until Aug. 31.

The exhibit features the works of 17 Minnesota and Wisconsin artists and includes prints, book arts, textiles, drawings, paintings and sculpture that depict areas of natural beauty and the threats they face. Participants include Vera Ming Wong, Barbara Harman, Mimi Holmes and Wendy Lane. At least 20 percent of monies raised from artwork sales will go to the Scientific and Natural Areas Program of the Minnesota Department of Natural Resources.

Vera Ming Wong, a member of the MNPS, is founder of Project Art for Nature. Inspired by a 1999 Bell Museum exhibit, 16 local artists banded together to formed PAN to promote stewardship of threatened natural areas in Minnesota and Wisconsin

For additional information about the exhibit, call the Bell Museum Information Line at 612-624-7803 or visit www.bellmuseum.org

The museum is located on the Minneapolis campus of the University of Minnesota at the southwest corner of 17th Ave. (Church St.) and University Ave. S.E.

Wildflowers and native grasses can still be planted by highways

Transportation departments may continue to plant native grasses and wildflowers along Minnesota highways. An effort to forbid planting these seeds was thwarted, and that amendment was removed from the transportation bill in the closing hours of the 2003 session of the Minnesota Legislature.

Several MNPS members talked about the folly of this "money-saving" measure at hearings at the Legislature and personally contacted legislators. Roy Robinson monitored progress of the measure. Speakers at the hearings included Roy, Dianne Plunkett Latham and Deb Anderson.

Minnesota Native Plant Society

Member Registration

Name _____

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City _____ **State** _____ **Zip** _____

Phone (work) _____ **(home)** _____

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Membership category (New _____ Renewal _____)

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$8 Senior (62 or over or retired)
$20 Institution
$25 Donor

Please fill in the form above and check the appropriate membership category. Your check should be made payable to the Minnesota Native Plant Society. Mail the completed form and your check to the Minnesota Native Plant Society, University of Minnesota, 250 Biological Sciences Center, 1445 Gortner Ave., St. Paul, MN 55108.

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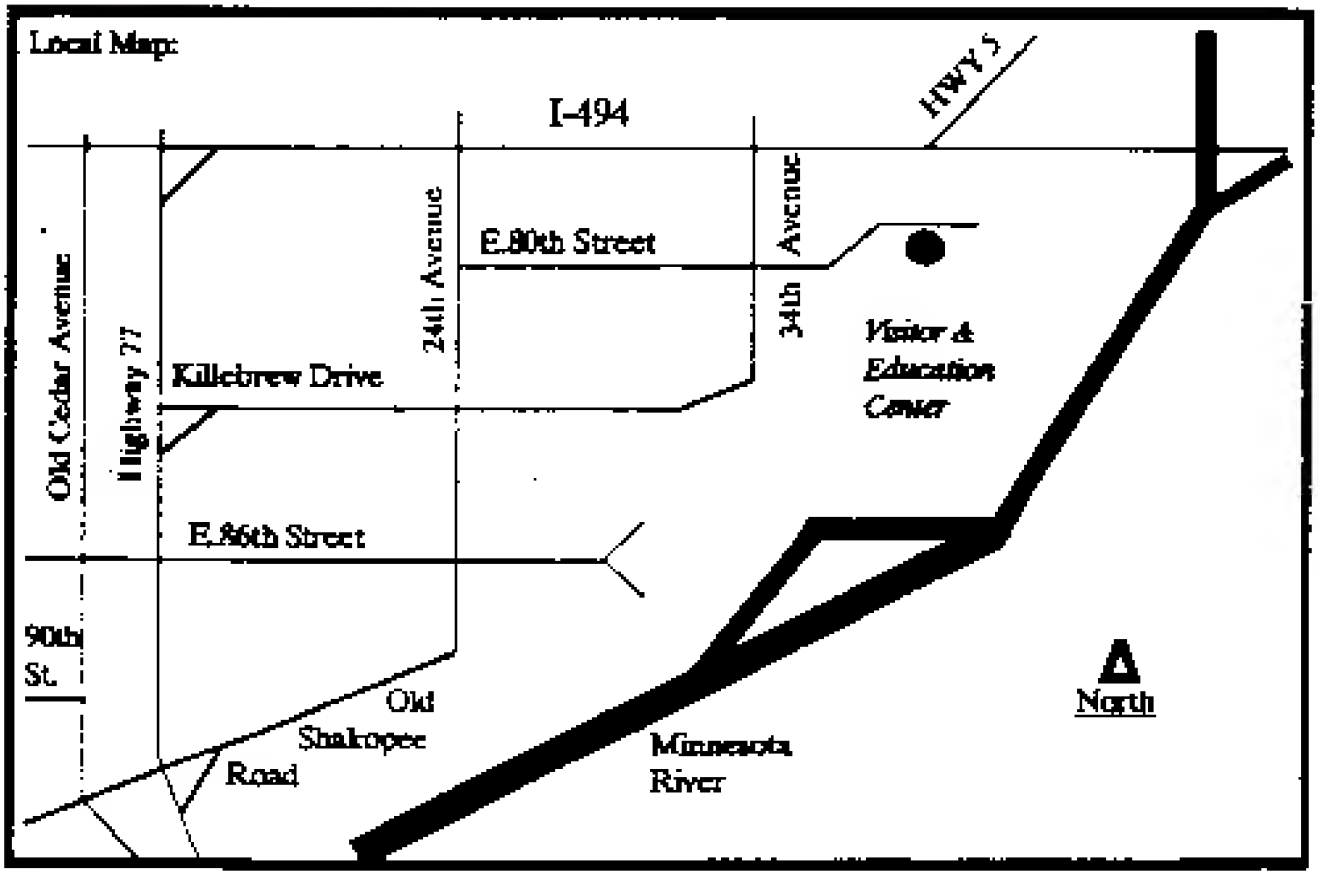

Figure 1

Figure 2